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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,139	03/19/2001	Bartlett Scott Hudson Michel	D-427A	7587

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Derrick M. Reid
Patent Attorney
The Aerospace Corporation
P. O. Box 92957 (M1/040)
Los Angeles, CA 90009-2957

EXAMINER

TIV, BACKHEAN

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,139

Applicant(s)

HUDSON MICHEL, BARTLETT
SCOTT

Examiner

Backhean Tiv

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 1,2,8,11,12,14,16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2151

Detailed Action

Claims 1-17 are pending in this application.

Claim Objections

Claims 1,2,8,11,12,14,16,17 are objected to because of the following informalities:

As per claim 1, line 7, "the steps of," the comma after of should be a colon, to read "the steps of :".

Claims 2, 8, 11,12,14 are objected to based on the same rationale as claim 1.

As per claim 16, line 22, "claim 15 wherein the", there should be a comma after wherein, to read "claim 15 wherein, the".

Claim 17 is objected to based on the same rationale as claim 16.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the routing packet" in line 25. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 is rejected based on the same rationale as claim 11.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,774,660 issued to Brendel et al.(Brendel) in view of US Patent 6,052,718 issued to Gifford.

As per claim 1, Brendel teaches a method of broadcasting from a proximal cache at a proximal internet protocol address (IPA) a routing item for indicating an originator storing web content data associated with a uniform resource locator (URL) of a web server permanently storing the web content data, the method comprising the steps of, originating URL identifier generating an originating URL identifier for indicating the URL(col.1,lines 37-64), destination IPA generating a destination IPA for indicating a destination cache(col.2,lines 29-35),

Brendel, however does not teach originating IPA generating an originating IPA for indicating the originator, associating the originating IPA and the originating URL as the routing item, and transmitting the routing item from the proximal cache at the proximal IPA to the destination cache at a destination IPA.

1 Gifford teaches originating IPA generating an originating IPA for indicating the
2 originator(col.9, lines 19-22),associating the originating IPA and the originating URL as
3 the routing item(col.7,lines 51-59), and transmitting the routing item from the proximal
4 cache at the proximal IPA to the destination cache at a destination IPA(col.7,line 60-
5 col.8,line10).

6 Therefore, it would have been obvious to one having ordinary skill in the art at
7 the time of the invention to modify the method of Brendel to include originating IPA
8 generating an originating IPA for indicating the originator, associating the originating IPA
9 and the originating URL as the routing item, and transmitting the routing item from the
10 proximal cache at the proximal IPA to the destination cache at a destination IPA as
11 taught by Gifford in order to route request to a server that will perform well for the
12 client(col.1,lines 33-40).

13
14 Claims 2-6,8,9,11,12,14-17 are rejected under 35 U.S.C. 103(a) as being
15 unpatentable over US Patent 5,774,660 issued to Brendel et al.(Brendel) in view of US
16 Patent 6,052,718 issued to Gifford in further view of US Patent 6,546,422 issued to
17 Isoyama et al.(Isoyama).

18
19 Brendel in view of Gifford teaches all the limitations of claim 1, however does not
20 teach as per claim 2, the method of claim 1 further comprising the steps of,
21 distance generating a distance metrics for indicating a web
22 hop distance of a number of the plurality of cooperative web caches

1 through which the URL web content data would be communicated from
2 the from the originator through the plurality of cooperative web
3 caches to the proximal web cache.

4 Isoyama teaches distance generating a distance metrics for indicating a web
5 hop distance of a number of the plurality of cooperative web caches
6 through which the URL web content data would be communicated from
7 the from the originator through the plurality of cooperative web
8 caches to the proximal web cache(col.4,lines 52-62).

9 Therefore, it would have been obvious to one having ordinary skill in the art at
10 the time of the invention to modify the method of Brendel in view of Gifford to include
11 teaches distance generating a distance metrics for indicating a web hop distance of a
12 number of the plurality of cooperative web caches through which the URL web content
13 data would be communicated from the from the originator through the plurality of
14 cooperative web caches to the proximal web cache as taught by Isoyama in order to
15 minimize the use of network resource for caching(col.2,lines 30-31).

16 As per claim 3, the method of claim 2 wherein,
17 the originating URL identifier is a proximal URL identifier(Brendel, col.1,lines 37-64),
18 the originating IPA is the proximal IPA(Gifford, col.6,line 66-col.7,line 1)
19 the proximal cache stores locally the web content data(Brendel, Fig.2), and
20 the metric distance is one indicating that one web hop is
21 between the destination cache to the proximal cache(Isoyama, Fig.4).

22 As per claim 4, the method of claim 2 wherein,

1 the originating URL identifier is a source URL identifier(Brendel, col.1,lines 37-64),
2 the originating IPA is the source IPA indicating an IPA
3 location of a source distally storing the web content data(Brendel, col.2,lines 29-35),
4 the metric distance is greater than one indicating a number
5 greater than one of the number of web hops between the destination
6 cache through the proximal cache to the source distally storing the
7 web content data(Isoyama, Fig.4).

8 As per claim 5, the method of claim 4 wherein, the source is a distal web cache
9 distal storing the web content data, and the source IPA is a distal web cache
10 IPA(Brendel, col.2,lines 29-35).

11 As per claim 6, the method of claim 4 wherein, the source is the web server
12 distal permanently storing the web content data(Brendel, col.2,lines 36-39), and
13 the source IPA is a web server IPA indicating the IPA location of the web
14 server(Brendel, col.2,lines 29-40).

15 As per claim 8, Brendel teaches a method of broadcasting from a proximal cache
16 at a proximal internet protocol address (IPA) a routing item for indicating a
17 distal web cache storing web content data associated with a uniform
18 resource locator (URL) of a web server permanently storing the web
19 content data, the proximal web cache is a first one of a plurality
20 of cooperative web caches, the distal web caches is a last one of
21 the plurality of cooperative web caches, the method comprising the
22 steps of,

1 URL identifier generating a URL identifier for indicating the web content data of
2 the URL stored in the distal web cache(Brendel, Figs.1-3),
3 proximal IPA generating the proximal IPA for indicating the location of the
4 proximal cache(Brendel, col.2,lines1-9),
5 destination IPA generating a destination IPA for indicating a destination
6 cache(Brendel, Figs.1-3,element 18),

7 However, Brendel does not teach transmitting the routing item from the proximal
8 cache at the proximal IPA to the destination cache at a destination IPA and distance
9 generating a distance metric for indicating a web hop distance of any number of the
10 plurality of cooperative web caches through which the web content data would be
11 communicated from the distal web cache to the destination web cache,
12 associating the proximal IPA and the URL identifier and the distance metric as the
13 routing item.

14 Gifford teaches transmitting the routing item from the proximal cache at the
15 proximal IPA to the destination cache at a destination IPA(Gifford, col.7,line 60-
16 col.8,line10).

17 Therefore, it would have been obvious to one having ordinary skill in the art at
18 the time of the invention to modify the method of Brendel to include transmitting the
19 routing item from the proximal cache at the proximal IPA to the destination cache at a
20 destination IPA as taught by Gifford in order to route request to a server that will
21 perform well for the client(col.1,lines 33-40).

1 Brendel in view however does not teach distance generating a distance metric for
2 indicating a web hop distance of any number of the plurality of cooperative web caches
3 through which the web content data would be communicated from the distal web cache
4 to the destination web cache (Isoyama, col.4,lines 52-62), associating the proximal IPA
5 and the URL identifier and the distance metric as the routing item(Isoyama, Fig.4).

6 Therefore, it would have been obvious to one having ordinary skill in the art at
7 the time of the invention to modify the method of Brendel in view of Gifford to include
8 distance generating a distance metric for indicating a web hop distance of any number
9 of the plurality of cooperative web caches through which the web content data would be
10 communicated from the distal web cache to the destination web cache as taught by
11 Isoyama in order to minimize the use of network resource for caching(col.2,lines 30-31).

12 As per claim 9, the method of claim 8 wherein, the distance metric is greater than
13 one indicating a number greater than one of the number of web hops between the
14 destination cache through the proximal cache to the distal web cache storing
15 the web content data(Isoyama, Fig.4).

16 As per claim 11, the method of claim 8 further comprising the steps of,
17 repeating the URL identifier generating step(Brendel, col.1,lines 37-64), proximal IPA
18 generating step(Brendel, Fig.2), distance generating step(Isoyama, Fig.4), the
19 associating step (Isoyama, Fig.4); it is implicit to repeat the steps of URL generating,
20 proximal IPA generating, distance generating, and associating because there are
21 multiple items in the cache therefore, these steps are necessary for accessing the

1 multiple items in the cache, a plurality of times for generating a plurality of routing items
2 each comprising a URL identifier and a respective distance metric, and
3 incorporating the plurality of routing items within a protocol
4 data structure within the routing packet prior to the transmitting
5 step, the routing protocol packet comprising the URL and a
6 respective distance metrics(Isoyama, Fig.4)and comprising the proximal IPA and the
7 destination IPA(Gifford, col.7,line 60-col.8,line10,Brendel,Fig.7).

8 As per claim 12, Brendel teaches a method of broadcasting from a proximal
9 cache at a proximal internet protocol address (IPA) a routing item for indicating a
10 distal web cache storing web content data associated with a uniform
11 resource locator (URL) of a web server permanently storing the web
12 content data, the proximal web cache is a first one of a plurality
13 of cooperative web caches, the distal web caches is a last one of
14 the plurality of cooperative web caches, the method comprising the
15 steps of,

16 URL identifier generating a URL identifier of the plurality of URL identifiers, the
17 URL identifier for indicating the web content data of the URL stored in the distal
18 web cache(Brendel, Figs.1-3),

19 proximal IPA generating the proximal IPA for indicating the location of the
20 proximal cache(Brendel, col.2,lines1-9),

21 destination IPA generating a destination IPA for indicating a destination
22 cache(Brendel, Figs.1-3,element 18),

1 However does not teach associating the proximal IPA and the URL and the
2 distance metrics as the routing item, and transmitting the routing item in a routing
3 packet within a routing protocol from the proximal cache at the proximal IPA to the
4 destination cache at a destination IPA, storing in a routing table a plurality of URL
5 identifiers cross referenced a respective plurality of distance metrics, distance
6 generating a distance metrics by cross referencing the URL identifier to one of the
7 plurality of URL identifiers and to a respective one of the plurality of distance metrics for
8 indicating a web hop distance of any number of the plurality of cooperative web caches
9 through which the web content data would be communicated from the distal web cache
10 to the destination web cache.

11 Gifford teaches associating the proximal IPA and the URL and the distance
12 metrics as the routing item (Gifford, col.7,lines 51-59), and transmitting the routing item
13 in a routing packet within a routing protocol from the proximal cache at the proximal IPA
14 to the destination cache at a destination IPA(Gifford, col.7,line 60-col.8,line10).

15 Therefore, it would have been obvious to one having ordinary skill in the art at
16 the time of the invention to modify the method of Brendel to include associating the
17 proximal IPA and the URL and the distance metrics as the routing item, and transmitting
18 the routing item in a routing packet within a routing protocol from the proximal cache at
19 the proximal IPA to the destination cache at a destination IPA as taught by Gifford in
20 order to route request to a server that will perform well for the client(col.1,lines 33-40).

21 Brendel in view of Gifford does not teach storing in a routing table a plurality of
22 URL identifiers cross referenced a respective plurality of distance metrics, distance

1 generating a distance metrics by cross referencing the URL identifier to one of the
2 plurality of URL identifiers and to a respective one of the plurality of distance metrics for
3 indicating a web hop distance of any number of the plurality of cooperative web caches
4 through which the web content data would be communicated from the distal web cache
5 to the destination web cache.

6 Isoyama teaches storing in a routing table a plurality of URL identifiers cross
7 referenced a respective plurality of distance metrics (Isoyama, col.4,lines 52-62),
8 distance generating a distance metrics by cross referencing the URL identifier to one of
9 the plurality of URL identifiers and to a respective one of the plurality of distance metrics
10 for indicating a web hop distance of any number of the plurality of cooperative web
11 caches through which the web content data would be communicated from the distal web
12 cache to the destination web cache(Isoyama, col.4,lines 34-62),

13 Therefore, it would have been obvious to one having ordinary skill in the art at
14 the time of the invention to modify the method of Brendel in view of Gifford to include a
15 routing table a plurality of URL identifiers cross referenced a respective plurality of
16 distance metrics, distance generating a distance metrics by cross referencing the URL
17 identifier to one of the plurality of URL identifiers and to a respective one of the plurality
18 of distance metrics for indicating a web hop distance of any number of the plurality of
19 cooperative web caches through which the web content data would be communicated
20 from the distal web cache to the destination web cache as taught by Isoyama in order to
21 minimize the use of network resource for caching(col.2,lines 30-31).

1 Claim 14 is of the same scope as claim 11, therefore is rejected based on the
2 same rationale (see claim 11 rejection).

3 As per claim 15, the method of claim 12 wherein, the storing steps creates a
4 routing table for cross referencing the plurality of URL identifiers to the plurality of
5 distance metrics (Isoyama, Fig.4) and to one or more juxtaposed cooperative web
6 caches IPAs of one or more juxtaposed cooperative web caches of the cooperative
7 web caches, the one or more juxtaposed cooperative web caches for routing URL
8 identifiers to distal web caches storing the web content data of the respective plurality of
9 URL identifiers(Brendel, Fig.5).

10 As per claim 16, the method of claim 15 wherein the proximal cache and the one
11 or more juxtaposed cooperative web caches being within a local
12 group of cooperative web caches(Brendel, Fig.2; the examiner interprets that the
13 servers of Fig.2 is juxtaposed cooperative web caches).

14 As per claim 17, the method of claim 16 wherein the proximal cache is within one
15 or more local groups of cooperative web caches(Brendel, Fig.2; it is inherent that the
16 proximal cache could be on of the servers).

17
18 Claims 7,10,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over
19 US Patent 5,774,660 issued to Brendel et al.(Brendel) in view of US Patent 6,052,718
20 issued to Gifford in further view of US Patent 6,701,415 issued to Hendren,
21 III(Hendren).

22

1 Brendel in view of Gifford teaches all the limitations of claim 1 and an exact URL
2 identifier being an exact URL comprising a plurality of URL
3 components(Brendel, col.1,lines 37-63), and the originating URL identifier is selected
4 from the group consisting of, a wildcard URL identifier being a wildcard URL comprising
5 a plurality of URL components a last URL component of which being a wildcard
6 component(Brendel, col.2, lines 19-28) however does not teach as per claim 7, the
7 method of claim 1, wherein a coded URL identifier being a coded URL comprising a
8 seriesof hashing codes of a decomposed URL being a decomposition of the
9 URL selected from the group consisting of either an exact URL or a
10 wildcard URL each of which comprising a series of URL components,
11 the series of hashing codes being a sequence of hashing codes of respective URL
12 segments of a respective series of increasingly concatenated URL components of the
13 series of URL components of the URL.

14 Hendren teaches a coded URL identifier being a coded URL comprising a series
15 of hashing codes of a decomposed URL being a decomposition of the
16 URL selected from the group consisting of either an exact URL or a
17 wildcard URL each of which comprising a series of URL components,
18 the series of hashing codes being a sequence of hashing codes of respective URL
19 segments of a respective series of increasingly concatenated URL components of the
20 series of URL components of the URL(col.2,lines 37-47).

21 Therefore, it would have been obvious to one having ordinary skill in the art at
22 the time of the invention to modify the method of Brendel in view of Gifford to include a

1 coded URL identifier being a coded URL comprising a series of hashing codes of a
2 decomposed URL being a decomposition of the URL selected from the group consisting
3 of either an exact URL or a wildcard URL each of which comprising a series of URL
4 components, the series of hashing codes being a sequence of hashing codes of
5 respective URL segments of a respective series of increasingly concatenated URL
6 components of the series of URL components of the URL as taught by Hendren in
7 order to select one of a plurality of caches(col.3, lines 17-22)

8 Claims 10 and 13 are of the same scope as claim 7, therefore is rejected based
9 on the same rationale (see claim 7 rejection).

10 **Conclusion**

11 Any inquiry concerning this communication or earlier communications from the
12 examiner should be directed to Backhean Tiv whose telephone number is (703) 305-
13 8879. The examiner can normally be reached on 9 A.M.-12 P.M. and 1 -6 P.M.
14 Monday-Friday.

15 If attempts to reach the examiner by telephone are unsuccessful, the examiner's
16 supervisor, Glenton B Burgess can be reached on (703) 305-4792. The fax phone
17 number for the organization where this application or proceeding is assigned is 703-
18 872-9306.

Art Unit: 2151

1 Information regarding the status of an application may be obtained from the
2 Patent Application Information Retrieval (PAIR) system. Status information for
3 published applications may be obtained from either Private PAIR or Public PAIR.
4 Status information for unpublished applications is available through Private PAIR only.
5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should
6 you have questions on access to the Private PAIR system, contact the Electronic
7 Business Center (EBC) at 866-217-9197 (toll-free).

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Andrew Caldwell
Andrew Caldwell